

Amendments to the Claims

1 Claim 1 (currently amended): A method for programmatically enforcing referential integrity
2 constraints among associations between class instances, comprising steps of:
3 determining, when evaluating a request to set an association end to reflect an association
4 from an instance of a first class to an instance of a second class, whether the association end has
5 a single multiplicity or a many multiplicity;
6 setting the requested association end; and
7 programmatically modifying an inverse association end of the association to reflect an
8 inverse association from the instance of the second class to the instance of the first class, after
9 disconnecting the inverse association end from an existing instance, if any;
10 wherein an ordering of the setting step and the programmatically modifying step depends
11 on an outcome of the determining step.

Claim 2 (canceled)

1 Claim 3 (currently amended): The method according to Claim [[2]] 1, wherein the ordering of
2 the setting and the programmatically modifying steps for a particular association end where the
3 outcome is that has a the single multiplicity further comprise steps of: comprises
4 disconnecting the inverse association end from an existing instance, if any;
5 performing the programmatically modifying step after performing the disconnecting step;
6 and

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7 —— performing the setting step after performing the disconnecting programmatically
8 modifying step.

1 Claim 4 (currently amended): The method according to Claim [[2]] 1, wherein the ordering of
2 the setting and the programmatically modifying steps for a particular association end where the
3 outcome is the that has a many multiplicity further comprise steps of: comprises
4 —— performing the setting step before performing the programmatically modifying step;
5 —— disconnecting the inverse association end from an existing instance, if any, after
6 performing the setting step, and
7 —— performing the programmatically modifying step after performing the setting step.

1 Claim 5 (original): The method according to Claim 1, further comprising steps of:
2 determining whether the association end or the inverse association end is a primary end of
3 the association; and
4 serializing only the primary end of the association during a serialization operation.

1 Claim 6 (original): The method according to Claim 1, wherein the method is provided as link
2 helper objects.

1 Claim 7 (currently amended): A computer program product for programmatically enforcing
2 referential integrity constraints among associations between class instances, wherein the

3 computer program product is embodied on one or more computer readable media and comprises:

4 computer-readable program code means for determining, when evaluating a request to set
5 an association end to reflect an association from an instance of a first class to an instance of a
6 second class, whether the association end has a single multiplicity or a many multiplicity;

7 computer-readable program code means for setting the requested association end; and

8 computer-readable program code means for programmatically modifying an inverse
9 association end of the association to reflect an inverse association from the instance of the second
10 class to the instance of the first class, after disconnecting the inverse association end from an
11 existing instance, if any;

12 wherein an ordering of operating the computer-readable program code means for setting
13 and the computer-readable program code means for programmatically modifying depends on an
14 outcome of the computer-readable program code means for determining.

Claim 8 (canceled)

1 Claim 9 (currently amended): The computer program product according to Claim [[8]] 7,

2 wherein the ordering of operating the computer-readable program code means for setting and the
3 computer-readable program code means for programmatically modifying for a particular
4 association end where the outcome is the that has a single multiplicity further comprises
5 comprise:

6 ————— computer-readable program code means for disconnecting the inverse association end

7 from an existing instance, if any;

8 — computer-readable program code means for operating the computer-readable program

9 code means for programmatically modifying after operating the computer-readable program code

10 means for disconnecting; and

11 — computer-readable program code means for operating the computer-readable program

12 code means for setting after operating the computer-readable program code means for

13 disconnecting programmatically modifying; and

14 wherein the ordering of operating the computer-readable program code means for setting

15 and the computer-readable program code means for programmatically modifying for a particular

16 association end that has a where the outcome is the many multiplicity further comprises

17 comprise:

18 — computer-readable program code means for operating the computer-readable program

19 code means for performing the setting before operating the computer-readable program code

20 means for programmatically modifying;

21 — computer-readable program code means for disconnecting the inverse association end

22 from an existing instance, if any, after operation of the computer-readable program code means

23 for setting; and

24 — computer-readable program code means for operating the computer-readable program

25 code means for programmatically modifying after operating the computer-readable program code

26 means for setting.

1 Claim 10 (original): The computer program product according to Claim 7, further comprising:
2 computer-readable program code means for determining whether the association end or
3 the inverse association end is a primary end of the association; and
4 computer-readable program code means for serializing only the primary end of the
5 association during a serialization operation.

1 Claim 11 (currently amended): A system for programmatically enforcing referential integrity
2 constraints among associations between class instances, comprising:
3 means for determining, when evaluating a request to set an association end to reflect an
4 association from an instance of a first class to an instance of a second class, whether the
5 association end has a single multiplicity or a many multiplicity;
6 means for setting the requested association end; and
7 means for programmatically modifying an inverse association end of the association to
8 reflect an inverse association from the instance of the second class to the instance of the first
9 class, after disconnecting the inverse association end from an existing instance, if any;
10 wherein an ordering of operating the means for setting and the means for
11 programmatically modifying depends on an outcome of the means for determining.

Claim 12 (canceled)

1 Claim 13 (currently amended): The system according to Claim [[13]] 11, wherein the ordering of

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2 operating the means for setting and the means for programmatically modifying for a particular
3 association end that has a where the outcome is the single multiplicity further comprises
4 comprise:
5 — means for disconnecting the inverse association end from an existing instance, if any;
6 — means for operating the means for programmatically modifying after operating the means
7 for disconnecting, and
8 — means for operating the means for setting after operating the means for disconnecting
9 programmatically modifying; and
10 wherein the ordering of operating the means for setting and the means for programmatically
11 modifying for a particular association end that has a where the outcome is the many multiplicity
12 further comprises comprise:
13 — means for operating the means for performing the setting before operating the means for
14 programmatically modifying;
15 — means for disconnecting the inverse association end from an existing instance, if any,
16 after operation of the means for setting, and
17 — means for operating the means for programmatically modifying after operating the means
18 for setting.

1 Claim 14 (original): The system according to Claim 11, further comprising:
2 means for determining whether the association end or the inverse association end is a
3 primary end of the association; and

4 means for serializing only the primary end of the association during a serialization
5 operation.

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